Unleashing Gen Y: Marketing Mars to Millennials

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Abstract

Space advocates need to engage Generation Y (born 1977-1999). This outreach is necessary to recruit the next generation of scientists and engineers to explore Mars. Space advocates in the non-profit, private, and government sectors need to use a combination of technical communication, marketing, and politics, to develop messages that resonate with Gen Y. Until now, space messages have been generated by and for college-educated white males; Gen Y is much more diverse, including as much as one third minorities. Young women, too, need to be reached. My research has shown that messages emphasizing technology, fun, humor, and opportunity are the best means of reaching the Gen Y audience of 60 million (US population is 300 million). The important things space advocates must avoid are talking down to this generation, making false promises, or expecting them to "wait their turn" before they can participate. This is the MTV generation! We need to find ways of engaging Gen Y now to build a future where human beings can live and work on the planet Mars. In addition to the messages themselves, advocates need to keep up with Gen Y's social networking and use of iPods, cell phones, and the Internet. NASA and space advocacy groups can use these tools for "viral marketing," where young people share targeted spacerelated information via cell phones or the Internet because they like it. Overall, Gen Y is a socially dynamic and media-savvy group; advocates' space messages need to be sincere, creative, and placed in locations where Gen Y lives. Mars messages must be memorable!

I. Introduction: Targeted Marketing in Space Advocacy

The National Aeronautics and Space Administration (NASA)'s Ares Projects Office (APO) has started building new vehicles to send human beings to the Moon, Mars, and beyond. This exploration mission will require broad and sustained political support as well as a skilled and motivated work force to contribute to the effort. It is the task of organizations like NASA's Office of Strategic Analysis and Communication (OSAC) and Public Affairs Office (PAO) as well as nonprofit-groups like the Mars Society and the National Space Society (NSS) to inform, educate, and inspire the public to support this mission.

While NASA is prevented by statute from directly marketing its activities to the public, encouraging public interest in human space exploration still requires skills from the marketing discipline, as well as technical communication and political science.¹

The most important attribute that all three disciplines share is an understanding of audience needs and the ability to tailor messages based on those findings. In technical communication, this activity is called audience analysis; in marketing, the same information is gathered through market research; in politics, audience attitudes are surveyed through polling.

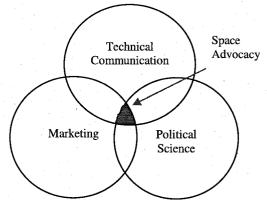


Figure 1. Space advocacy operates at the intersection of technical communication, marketing, and politics.

Recent surveys have shown² that young people aged 18 to 24 ("Generation Y" or "Gen Y"), while having a positive attitude about NASA and robotic exploration of Mars, are less supportive or interested in sending human beings to explore or settle Mars. The purpose of this paper is to suggest strategies and tactics for reaching this important group.

II. Goals, Objectives, Audience Analysis, and Strategy

As with any sustained public outreach campaign, the effort to build and sustain support for human Mars missions must include goals, objectives, audience analysis, strategy, tactics, and feedback mechanisms to evaluate effectiveness. What follows is a sample marketing campaign that could be employed by NASA or private space advocacy groups.

Goal

The goal is to get members of Gen Y to support a human mission to Mars.

Objectives

- 1. Increased political support for the mission in the forms of:
 - a. Increased voting for pro-Mars candidates.
 - b. Public demonstrations in support of the mission (or against cuts to the mission).
 - c. Increased lobbying efforts in support of human Mars exploration and settlement.
- 2. Increased cultural acceptance of messages regarding Mars exploration and settlement. This acceptance could take many forms, including:
 - a. Stories
 - b. Songs
 - c. Blogs
 - d. Fashions
 - e. Movies, TV shows, videos
 - f. Food
 - g. Toys

While objective 1 is more easily quantifiable, objective 2 places pro-Mars messages "where people live," and thus is more likely to impact political support. Still, individuals evaluating progress toward objective 2 could make counts of items a-through-g and track trends over time.

Audience Analysis

Given the need for college-educated engineers and scientists³ as well as interested voters, the authors chose to concentrate on Americans 18 to 29 years old (born 1978 to 1989). Other assumptions about the target audience include:

- At least high-school educated.
- Employed or a full-time student.
- Has regular access to a computer and cell phone.
- English is their primary language.
- Has disposable income.
- Mixed audience based on national demographics:
 - o 74.7% non-Hispanic⁴ White
 - o 12.1% Black
 - o 4.3% Asian
 - o 0.8% Alaska Native or Native American
 - o 0.1% Native Hawaiian or Pacific Islander
 - o 7.9% other
 - o 51% female
 - o 49% male⁵
- Neutral to favorable about space exploration in general.

In addition to these objective attributes, the following subjective events can and do affect their reactions to pro-Mars messages: all of them were born during the Space Shuttle era, and most were born after the end of the Cold War. While some are too young to have witnessed the *Challenger* disaster, all of them are familiar with the reentry loss of *Columbia*. For this generation, human space flight has been confined to Earth orbit, and often is seen as perilous.

Meanwhile, the 1990s have been very successful for robotic exploration, with the Mars Sojourner, Spirit, and Opportunity rovers providing impressive images from Mars at a (comparatively) low price. Much of their exposure to space has been through action-packed science fiction movies. Most of the benefits ("spin-offs") derived from space technologies have become invisible. They do not see space exploration as exciting (Figure 2) or as relevant to their daily lives.

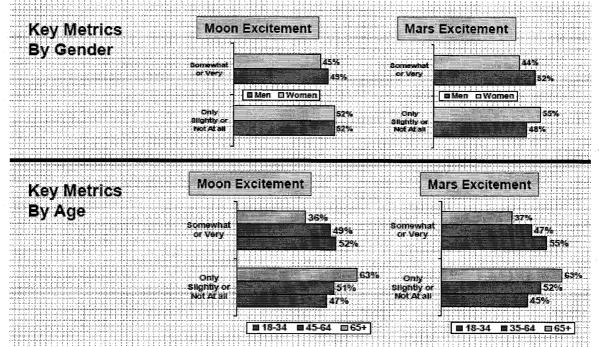


Figure 22. Enthusiasm for Moon and Mars missions by gender and age (Source: NASA Strategic Communications Framework Implementation Plan).

An analysis by California State University-Chico offered several insights into Gen Y as a consumer, technological, and social group. At 32 percent of the population, they are already making their spending clout felt. These individuals grew up in a media-saturated, brand-conscious world (i.e. were raised as consumers). As a result of this familiarity with the media, they have developed a distrustful and cynical view of advertising. They are interested in messages that offer **unvarnished truth**, **irony**, **and humor**. They are more open to "cause-related" marketing, with 83 percent willing to switch brands for a good cause if price and quality were equal.

As technology users, Gen Y gets its news from the Internet – their primary media vehicle. They are the first generation to grow up with computers in the home and some have even been using computers since nursery school. They communicate primarily through email and are very "plugged in" through video games, blogs, Facebook, cell phones, personal digital assistants, iPods, instant messaging and text messaging- including Twitter and Jaiku- which are basically text messages broadcast out to a group of friends.⁷

Generation Y's cognitive style is geared toward "parallel processing" rather than linear thinking. Used to multiple media providing information to them at once, they handle higher levels of input or output than previous generations. They are graphics-oriented and see text as a support for visuals. This type of thinking reinforces multitasking and movie- or game-like desires for instant gratification.⁸

Socially, Gen Y has been characterized as upbeat, confident, self-reliant, and goal-oriented. In some ways, they see themselves as superior to older generations because they are more techno-savvy and capable of accessing greater breadth of information quickly. On matters of diversity, they are seen as more diverse and tolerant, with a strong dislike for racism in any form. In general, they value their family, their country, and their planet.⁹

Given the motivations described above, a combination of three themes—fun, technology, and opportunity—would have the best chance for attracting the attention of this audience.

The most important way to get these pro-Mars messages across is to strategically place the messages "where they live." Mars messages need to become as much a part of their lives as popular music, television, or electronic gadgets. This would involve an initial "push" of messages through stories, music, events, blogs, etc. in a "cool" manner that relates the need for Mars exploration to Gen Yers' lives today. Once this initial push of messages is begun, Gen Y will eventually turn Mars messaging into a "pull" (demand) phenomenon, where they start to crave more and most importantly—create their own.

When it comes to creating opportunities, NASA and space advocacy groups need to provide both social networking events that offer advice on activism and learning more about Mars. They also need to create opportunities for Gen Y to participate in actual Mars-related activities, whether it be technical or creative. Finally, any opportunities must allow for and reward hands-on participation and creativity, perhaps through Centennial Challenges or other similar programs. The point of this effort is to light a fire under Generation Y and have them push for the idea of exploring and settling the planet Mars.

III. Tactics

The prime delivery mechanism for reaching Generation Y will be the Internet. However, future Webbased efforts will not be one-way-push broadcasts. Younger users of the Web prefer a great deal more interactivity than the current NASA.gov site currently offers.

A. Web-Based Activities

NASA.Gov

The good news is that the Office of Strategic Communications, based at NASA Headquarters, has already proposed and is in the process of implementing a "Web 2.0 Redesign" of NASA.gov. ¹⁰ Among the features are:

- Dynamic content
- Customization (user-generated or server-defined)
- Most-popular searches
- Most-popular pages
- Social bookmarks (del.icio.us, Digg, etc.)
- NASATube, NASApedia external release
- Internal release in July; NASA users populate
- Allowing public to comment or tag NASA content, accepting user-created content
- Mashups* of content outside www.nasa.gov

The most important aspect of these changes will be that they will enable Web-savvy young people to engage and interact with NASA's considerable and wide-ranging content. This interaction might become irreverent at times, but it also allows Gen Y to feel some ownership over their nation's space program. Shareable content of this sort could include informational videos, games, traditional news stories or press releases, music videos, and tagged content that allows users to link to NASA.gov.

^{*} A "Mashup" is a user-driven combination of existing third-party web content. One example of this process was the development of a flight simulator program incorporating Google Earth mapping images.

Blogging and Social Networking Sites

NASA must re-engage the public on an emotional level.¹¹ NASA's sterilization of their message, and their spokespeople has cost them a tremendous amount of connection with the public. The focus of the new social networking sites is completely the opposite- transparency, inclusiveness, community. That has been the value of social networking sites like MySpace.com, Facebook.com, and others. Web log (blog) networks have also become very popular, as friends or individuals with common interests post their ideas on the Web and link to others. Of course NASA embracing this approach means moving beyond the agency's traditional comfort zones and talking about (or showing) the personalities of its people and their day-to-day challenges unsanitized and real.

NASA-related groups already have a presence on MySpace.com, such groups as the NASA Teacher In Space / Educator in Space, which includes astronauts Julie Payette and Sunita Williams as members. ¹² There are more than 500 NASA-related (but not affiliated) groups on Facebook.com. ¹³ The irony is that the best NASA groups are the ones *not* sanctioned by NASA.

YouTube and Viral Video

Another way for Gen Y to engage with Mars content is to post or view videos on YouTube.com. YouTube also offers opportunities for others to post their own versions of others' videos. This distribution of short-form content, called viral video, has taken off in recent years. For example, some college students clipped five seconds from a Japanese television show, added some dramatic music, and created a "Dramatic Chipmunk" viral video. This video has since been modified and added to by dozens of others, with each version also available on YouTube. Again, this is outside the normally conservative NASA culture¹⁴, but the emotional power and appreciation of humor cannot be overlooked as the agency and advocates seek to reach new audiences.

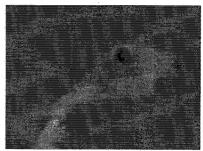


Figure 3. The "Dramatic Chipmunk" video, based on a five-second clip from a Japanese TV show, quickly spawned imitators and new variants.

To ensure engagement with NASA content, NASA.gov could feature "NASA Fan Videos." Rather than discourage enthusiasm by blocking the use of NASA images, the agency should encourage them, as Lucasfilm Ltd. is doing with its *Star Wars* franchise. *StarWars.com* posts fan films and has online voting for the best fan film – a second way to invite people to participate. ¹⁵ The videos are judged by George Lucas and his staff, and the winner is recognized at a public awards ceremony that includes television coverage. ¹⁶ Meanwhile, Paramount Pictures has distanced itself from *Star Trek* fan films—even though one of these fan film producers now boasts stars from the original '60s television show and over 30 million internet downloads ¹⁷—missing out on potential revenue and publicity.

One of the most recent high-technology social networking sites is SecondLife.com. Second Life is a graphical, interactive environment where individuals can pay for and create their own characters (avatars) and environments. Essentially a video game for the express purpose of socializing, Second Life is beginning to show promise as a business site as well. Ames Research Center in California has already established a collaborative laboratory ("CoLab") site for meetings, collaborative science, and public outreach.

Center Director Simon "Pete" Worden, in his Second Life persona of SimonPete Raymaker gave a live and Web presentation from the Ames "island" within Second Life during the International Space Development Conference in May 2007 to demonstrate the capabilities of this environment.



Figure 3. The Ames Research Center "Co-Lab" island in Second Life.

The presentation was one of the big hits of the Conference, as it offered a new view of NASA, an intriguing visual environment, and a unique opportunity for interested people to connect with a NASA official socially in a new way. During the talk people from around the country were logged in and typing in their responses and comments to Worden's talk. One user asked if NASA Administrator Mike Griffin would visit them in Second Life, Worden remarked that Griffin would probably come if golf were involved, within seconds another user offered to provide the Administrator with a free Second Life Golf Country Club Membership if he came.

B. Public Outreach

Going Where the Audience Is

Of course the Internet is not the only place to reach Generation Y. NASA must be visible in public places where young people can be found, including concerts, movie theaters, clubs, sporting events (APO had a presence at the "X Games" in Los Angeles a few weeks ago). In addition to providing interactive displays and games, NASA's Outreach efforts often include low-cost giveaway items that people can take with them.

One of the most successful and fun private efforts at building public awareness of space exploration has been "Yuri's Night," an annual event commemorating the launch of the first human being into space. As the event Web site explains,

Yuri Gagarin was the first human to go into space on April 12th, 1961. The US Space Shuttle first launched on April 12th, 1981. Yuri's Night is like the St Patrick's Day or Cinco de Mayo for space. It is one day when all the world can come together and celebrate the power and beauty of space and what it means for each of us.¹⁸

NASA itself has become more involved with Yuri's Night, with Ames Research Center opening up one of its hangars as a local party site. The Ames event included live music, large video screens, television coverage, internet webcasts, and presentations by NASA personnel, including Pete Worden. Live events like this facilitate fun, shared experiences, and perhaps the most important "marketing" tool

the space advocacy community enjoys, peer-to-peer advocacy. Generation Y, like others before it, is more likely to respond positively to an experience or idea if invited personally by friends.

Opportunities for Interaction and Ownership

NASA has opportunities for young people to participate in space exploration through the Centennial Challenges. These annual contests have offered cash prizes for developing technologies like beampowered "space elevator" crawlers and high-strength tethers capable of supporting a space elevator in the future. ¹⁹ The agency's Exploration Systems Mission Directorate also provides internships and senior projects for college students, as well as the opportunity to do a two-week Mars simulation at the Utah research station through the Spaceward Bound program. ²⁰ However, opportunities for participation need not stop there.

In a *Space News* editorial, National Space Society Executive Director George Whitesides suggested ways to make NASA missions more interactive.

The profusion of interactive technologies pioneered through the Internet, information technology and gaming sectors provide a spectrum of new ways to connect, engage, inspire and educate the public about space exploration. To fully exploit their potential, the agency should integrate these technologies at a fundamental level into mission planning. ²¹

Whitesides offers a possible vision of a future "wired" mission to the Moon, where "billions of citizens participate in the descent through an interactive exploration console, switching their view between multiple camera angles and data streams on their personal computers." Future Centennial Challenges could solicit ideas from students for similar mission aspects of future lunar and Mars exploration. And future competitions need not be confined to the technology end of the spectrum. Essay, story, video, and musical competitions would open up participation to all.

Gen Y is very Earth-conscious and eager to do work that is "green." Kim Stanley Robinson, author of the famed Mars trilogy (*Red Mars*, *Green Mars*, and *Blue Mars*), sees the exploration of Mars as a "green" activity as well:

We are already terraforming the Earth, but in ignorance and before we are prepared to do it, and all while the human population is dangerously testing the limits of the planet's carrying capacity. In this situation studying Mars, and even attempting to terraform it, become important aspects of Earth management research, because comparative planetology is a powerful tool when you are trying to understand global issues like climate, atmosphere creation or loss, and so on. Thus exploring Mars, among its other justifications, is also a "green project". 23

Therefore, by being mindful of human behavior and behavioral effects on Mars, we can, in turn, become more mindful of what we are doing to the environment here on Earth.

These types of events build a sense of excitement that lectures about engineering or science cannot achieve. Presenting this material in a fun and engaging way is the key to being effective. There is no rule that says education cannot or should not be fun. As Chris Baggott, an Internet marketing professional puts it, "Be human...People don't fall in love with institutions." NASA and the space advocacy movement need to transform their cultures if they are to reach a new generation of potential explorers.

IV. Measuring Effectiveness

It is important that NASA measure the effectiveness of a "Humans to Mars" campaign to ensure that taxpayer dollars are being spent appropriately and wisely. The advantage of an Internet-based campaign is that, while the up-front development costs are relatively high (especially if the agency is continuing to fund existing outreach efforts), some of the work becomes self-sustaining as content is forwarded and shared by interested citizens.

Another advantage of an Internet-based campaign is that many of the activities are easily counted or tracked. For example, NASA can count the number of hits or downloads of NASA-related data, as well as the number of people tagging a particular site (letting others know this is a good site). For example, recommender tags like "del.icio.us" (pronounced "delicious") or Digg allow users to track how many individuals have tagged a particular site. A Really Simple Syndication (RSS) feed also can be used to track the number of times and geographical locations in which these Mars-related outreach events are covered in local media or blogs.

Dedicated researchers also can monitor the attendance at pro-Mars events, the frequency of pro-Mars messages on the Internet, and the number of Mars-related web sites. However, the most important metrics for a campaign dedicated to improving the acceptance of Mars exploration would be the number of new applicants into science/engineering studies and professions as well as the number of people in the Gen Y target market voting based on Mars-related issues. The cultural acceptance of Mars exploration is a necessary ingredient for moving our civilization onto other worlds. What remains is to take the critical leap of putting these ideas into motion, which requires trained individuals able to complete the task.

V. Conclusion

Reaching Generation Y is a new and exciting effort within the space advocacy community, and given its 70 million members (depending on which years one uses for determining their birth), this will become an increasingly important task in the years to come. Given Gen Y's lack of connection with the Apollo missions, an extra multimedia effort must be made to reach this group on a number of different levels and "channels." The effort to go to the Moon, Mars, and beyond must be made fun, but also engaging and relevant to the generation that ultimately will do the exploring. This means meeting Gen Y on its own terms and in places where it lives, socializes, and surfs the Internet. It also means allowing, and even encouraging, their direct participation in our united mission to put a human on Mars.

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National Aeronautics and Space Administration

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Mars Society Convention August 30, 2007

www.nasa.go



Agenda



- ◆ Targeted marketing in space advocacy
- ♦ Goals, objectives, audience analysis, and strategy
- **◆ Tactics**
- **♦ Measuring effectiveness**
- **♦** Conclusion
- **♦ Q&A**

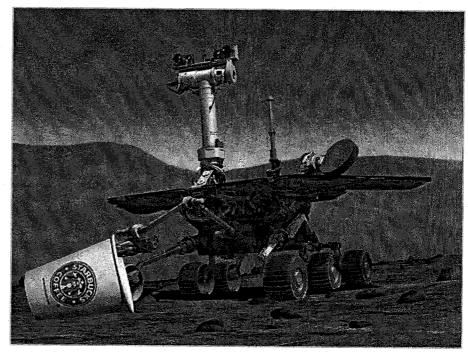


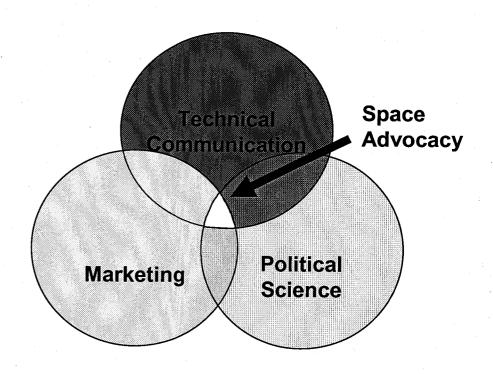
Image Credit: Mars Foundation



Targeted Marketing in Space Advocacy



- ♦ NASA's mission needs support
- NASA cannot do marketing, but can inform and educate
- Space advocacy = technical communication + marketing + political science
 - All 3 require audience analysis and tailored messages
- ◆ Target Audience: Generation Y (Ages 18 to 29)
 - Positive attitude about NASA and robotic exploration of Mars
 - Less supportive of sending human beings to Mars
- ◆ Goal: Find messages, strategies, and tactics that attract Gen Y





Goals and Objectives



♦ Goal:

 Get more members of Gen Y to support human missions to Mars

Objectives:

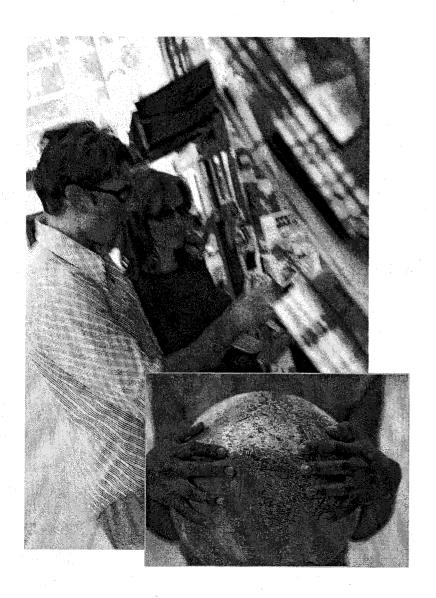
- Increased political support for human Mars missions:
 - Voting for pro-Mars candidates.
 - Public demonstrations
 - Increased lobbying efforts
- Increased acceptance of Mars messages through:
 - Stories
 - Songs
 - Blogs
 - Fashions
 - Movies, TV shows, videos
 - Food
 - Toys





Defining Our Target Audience





- ◆ Americans 18 to 29 years old (born 1978 to 1989)
- ◆ At least high-school educated/GED
- ◆ Employed or full-time student
- Regular access to computer and cell phone
- **♦** English primary language
- ♦ Has disposable income
- Mixed audience based on national demographics
- Neutral or favorable toward space exploration in general



Audience Attitudes

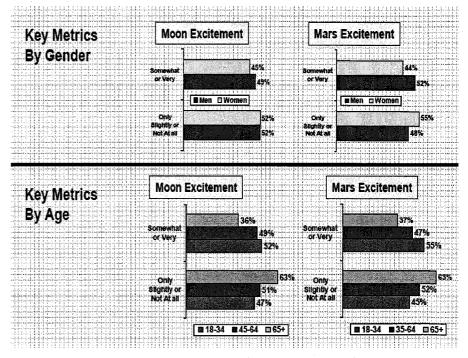


♦ Events/factors shaping attitudes:

- Space Shuttle era, post-Cold War
- Challenger/Columbia disasters
- Humans in Earth orbit only
- Mars rovers
- Science fiction/action movies
- Spin-offs from space "invisible"
- Space exploration "not relevant"

Other trends/attitudes:

- 32% of the population
- Media-saturated, brand-conscious
- Distrustful of advertising
- Enjoy truth, irony, and humor
- Open to "cause-related" marketing
- Very "plugged in"
- Upbeat, confident, self-reliant, and goal-oriented



Source: NASA Strategic Communications Framework Implementation Plan



Strategy



Messages (What)

• Fun, technology, and opportunity

◆ Method (How)

 Multi-channel "push" followed by demand-driven "pull" for content

Channels / going "where they live" (Where)

- Events/concerts
- Movie theaters
- Internet
- Tap into social networking
- Provide hands-on opportunities for involvement

◆ Spokespeople (Who)

- Celebrities
- People in Gen Y age group

◆ Incentives (How much?)

- Reward creativity
- Encourage feelings of ownership





Tactics



♦ Web-based activities

- NASA.gov
- Blogging and social networking sites (MySpace, Facebook, etc.)
- YouTube and other viral video
- SecondLife.com

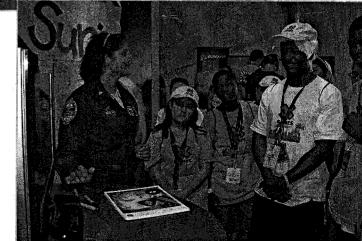
◆ Public Outreach

- Concerts
- Coffee shops
- Movie theaters
- X Games
- Yuri's Night

◆ Interaction and Ownership

- Centennial Challenges
- Cultural prizes:
 - Stories/essays/dramas
 - Songs/music/art
- Real-time internet access to missions
- Live/online interaction with astronauts
- Emphasize "green" applications





"Be human...People don't fall in love with institutions." - Chris Baggott



Measuring Effectiveness

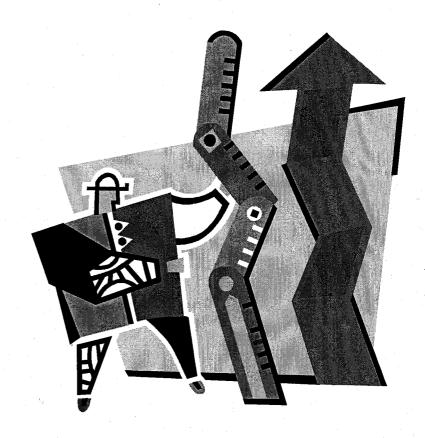


♦ Internet

- "Hits" or downloads of NASA-related data
- Users linking to NASA data:
 - Digg
 - RSS
 - Del.icio.us

◆ Public participation

- Participants at Mars-related events
- New students in science and technical fields
- Applicants to NASA
- Voting for pro-Mars candidates
- Joining pro-Mars organizations
- Money going to pro-Mars causes or organizations





Conclusion



- Reaching Gen Y is a new and exciting effort
- ◆ Gen Y participation will be very important in the future
- ♦ Must use multiple channels to reach audience
- ◆ Exploration should be fun, but also engaging and relevant
- We need to meet Gen Y on its own terms and where it lives
- ◆ Need to encourage Gen Y's direct participation in putting humans on Mars

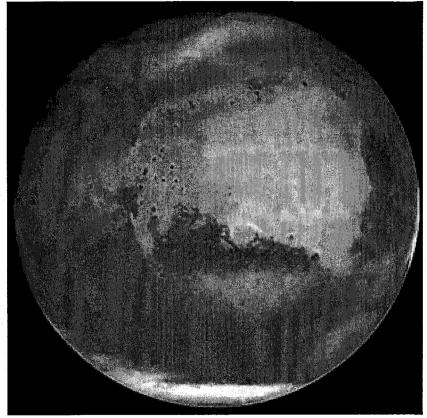


Image credit: Goddard Space Flight Center



Questions?



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